Doc. ID Number WVNS-IRP-006

Revision Number 3

Revision Date 03/26/2003

Engineering Release # 3686

West Valley

Demonstration Project

REMOTE-HANDLED WASTE FACILITY (RHWF) INTEGRATED RUN PLAN

PREPARED BY: Signature on File in Records & Configuration/Document Control J. P. Hurst
Cognizant Engineer

APPROVED BY: Signature on File in Records & Configuration/Document Control J. P. Curcio
Facility Manager

APPROVED BY: Signature on File in Records & Configuration/Document Control M. J. Sheridan
Cognizant Manager

WVNSCO
West Valley Nuclear Services Company

10282 Rock Springs Road
West Valley, New York USA 14171-9799

WVNS RECORD OF REVISION

Rev. No.	Description of Changes	Revision On Page(s)	Dated
0	Original Issue	All	08/24/01
FC1	Updated Signature List	Cover	04/15/02
	Section 1.0 - changed "operational cost analysis" to "campaign sequencing"	1	
	Section 2.0 - deleted items 12, 13, 14 & 15	2	
	Section 3.2 - added acronyms HPGE & MSM	2	
	Section 4.3 - added 4.3 [3]	3	
	Section 4.5 [2] - added "oversight"	3	
	Section 5.1 - deleted "a preliminary cost..... are finalized" and replaced with "waste input... for waste containers".	4	
	Section 6.0 - took off italics	5	
	Section 7.0 - took off italics	5	
	Attachment A - replaced list	6	
	Attachment C, 7.0 - added "RH-" before "TRU"	10	
	Attachment C, 9.0 - replaced "LLW but" with "mostly CH-TRU". Replaced last sentence	11	
	Attachment C, 13.0 - "GTCC" with "RH-TRU" and replaced "be stored in the HLWIS facility" with "require shielded storage"	11	
	Attachment C, page 4 of 4, replaced chart	12	
	Attachment E, page 2 of 5, replaced table	17	
	Added Attachment M - 6 pages	29	
1	Per ECN 13533		11/14/02
	3.1 - Added definitions "Disposition thru Packaged".	2	
	5.4 - Added reference to Attachments M & N	5	
	Attachment C - Revised processing times for waste streams 12 thru 24.	9	
	Attachment C - Editorial changes made to Notes and assumptions 1F, 9, 10, 12, 13, and 14.	10,11	
	Attachment C - Replaced processing sequencing chart due to revised durations.	12	
	Attachment D - Replaced old Processing Logic Diagrams with latest revision.	13,14,15	
	Attachment E - Replaced first two charts due to revised durations	16,17	
	Add Attachment N, Waste Acceptance Criteria - Changes affect all site personnel -	35	

WVNS RECORD OF REVISION CONTINUATION FORM

Rev. No.	Description of Changes	Revision On Page(s)	Dated
2	Per ECN #25444		01/15/03
	Updated title and signature list	Cover Page	
	Renumbered and reordered pages and attachments	All	
	Section 1.0 - Reworded for clarity	1	
	Section 2.2 - Replaced the RHWF ICD with WVNSCO Process Flow Diagrams	1	
	Section 3.1 - Deleted "WAC EVALUATION"	2	
	Section 3.2 - Added AK, DQO, DSA, NDA, SAP, SWAP & WAC to the acronym list	2	
	Section 4.1 - Added planning responsibility	3	
	Section 4.2 - RHWF Operations section rewritten	3	
	Section 4.3 - RHWF Engineering section rewritten	3	
	Section 4.7 - Added WCO responsibilities	4	
	Section 5.1 - Rewritten for consistency and clarity. Waste Stream Processing Logic Diagrams (old Attachment D) replace with RHWF Process Flow.	4	
	Section 5.3 - Attachment H, ALARA Considerations deleted. This info will be moved to the RHWP Project Implementation Plan (PIP)	5	
	Section 5.4 - Attachment E, RHWF Operations Summary; Attachment I, Utility Requirements; Attachment J, Storage/Staging Req'ts; Attachment K, Key Operational Interfaces; Attachment L, Hazard Analysis; and Attachment M, Failure Mode And Effects Analysis have all been deleted. This info may be moved to the RHWP PIP.	5	
	Section 6.0 - This section entirely rewritten	5	
	Section 7.0 - Rewritten for clarity	6	
	Section 8.0 - "Change Control" section deleted. "Records Maintenance" moved from Section 9.0 to Section 8.0.	6	
	Attachment A - Added "Alarms/Responses" to the SOP list.	8	
	Attachment B - Rewritten for consistency	9	
	Attachment C - Major rewrite of this attachment	10	
	Attachment D - Logic Diagrams replaced with RHWF Process Flow	12	
	Attachment H - Added Prerequisite Checklist	16	
	Attachment I - Added Sample Run Plan Exception forms	18	
3	Per ECN #25527 General Revision Enhancements made to move the procedure toward operational use. This revision affects Waste Management, PSO/RHW Ops, Quality Assurance, A&PC, Radiation Protection Operations, Environmental Affairs, the Cog Design Mgr, and Cog Design Engineer		03/26/03

TABLE OF CONTENTS

1.0 SCOPE 1

2.0 REQUIREMENTS & REFERENCES 1
2.1 Requirements 1
2.2 References 1

3.0 DEFINITIONS & ACRONYMS 1
3.1 Definitions 1
3.2 Acronyms 2

4.0 RESPONSIBILITIES 3
4.1 A&PC (Analytical and Process Chemistry) 3
4.2 RHWF Operations 3
4.3 RHWF Process Support 3

5.0 OPERATING SUMMARY 4
5.1 Waste Stream Processing 4
5.2 Training and Qualification 5
5.3 Radiological Controls 5
5.4 Miscellaneous Attachments 5

6.0 PREPARATION ACTIONS 5
6.1 Administrative 5
6.2 Prerequisite Actions 5

7.0 PROCEDURE/SEQUENCE 6

8.0 RECORDS MAINTENANCE 6

ATTACHMENT A - SOPs for RHWF Operations 7
ATTACHMENT B - In-Process Sampling and Analytical Information 8
ATTACHMENT C - RHWF Waste Stream Container Identification 9
ATTACHMENT D - RHWF Process Flow 11
ATTACHMENT E - RHWF Processing Areas 12
ATTACHMENT F - Training & Qualification Summary 13
ATTACHMENT G - RHWF Waste Stream Processing Guidelines 14
ATTACHMENT H - Prerequisite Checklist 16
ATTACHMENT I - Run Plan Exception (RPE) 18

REMOTE-HANDLED WASTE FACILITY (RHWF) INTEGRATED RUN PLAN

1.0 SCOPE

This integrated run plan (IRP) governs the operation of the RHWF and its systems in order to produce waste containers that meet WVNSCO on-site waste acceptance criteria.

This IRP provides applicable administrative requirements, operating logic, the sequence of operation, waste streams identification, processing parameters, and sampling and analysis information.

2.0 REQUIREMENTS & REFERENCES

2.1 Requirements

[1] WVNS-EP-14-001, Preparation of Integrated Run Plans

[2] WVDP-011, WVNS Industrial Hygiene and Safety Manual

[3] WVDP-010, WVNS Radiological Controls Manual

[4] DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities

[5] WVDP-106, Conduct of Operations Manual

2.2 References

[1] WVDP-332, Engineering and Work Instruction Standards

[2] WVDP-370, Radioactive Waste Acceptance Program

[3] WVNSCO Process Flow Diagrams 900D-7693, 900D-7698, 900D-8520, 900D-8588, and 900D-8589.

[4] WV-4900, Rev. 0, RHWF Waste Stream Processing Guidelines, Generator's Checklist

3.0 DEFINITIONS & ACRONYMS (Standard definitions and acronyms are contained in Ref. 2.2[1])

3.1 Definitions

SHADOW SHIELD - Secondary shielding typically used for scatter type, high-energy radiation.

DISPOSITION - Disposal Ready and Gone. Includes: (a) Shipped to Final Disposal Site or (b) Shipped to Temporary Storage Off-Site.

DISPOSAL READY - Characterized and Packaged; nothing else needs to be done. Includes waste that needs to be shipped for off-site treatment.

ON-SITE STORAGE - Disposal Ready (newly generated waste) and stored on the WVDP grounds.

CHARACTERIZED - Includes: (a) Waste Acceptance Criteria (WAC) met; (b) RCRA determination; and (c) Radiological classification

RCRA DETERMINATION - Hazardous constituents identified and/or quantified.

RADIOLOGICAL CLASSIFICATION - Radionuclides identified and/or quantified.

PACKAGED - Includes: (a) DOT Classification; (b) Site Criteria; and (c) meets disposal facility acceptance criteria for the package.

WASTE ACCEPTANCE CRITERIA (WAC) - Documented requirements established which define those physical, radiological, and chemical characteristics of a waste that must be met in order for a waste to be safely moved into a facility or storage location.

WASTE GENERATOR - For purposes all approved waste streams, RHWF Operations becomes the "Generator" of record for Waste Management procedures when processing waste into new packaging.

3.2 Acronyms

A&PC - Analytical & Process Chemistry

CCTV - Closed Circuit Television

DDWO - D&D/Waste Management Operations

NTS WAC - Nevada Test Site Waste Acceptance Criteria

ON-SITE WAC - WVDP Waste Acceptance Criteria

PSO - Plant Systems Operations

SWAP - Summary Waste Acceptance Package

WAC - Waste Acceptance Criteria

WIPP WAC - Waste Isolation Pilot Project Waste Acceptance Criteria

WMS - Waste Management Services

4.0 RESPONSIBILITIES (Standard responsibilities are contained in Ref. 2.2[1])

4.1 A&PC

[1] Provides input to the planning of sampling activities, sample handling, and sample transport to the laboratories.

[2] Performs analysis and documentation of samples required by RHWF Operations.

4.2 RHWF Operations

4.2.1 DDWO

[1] Operates the RHWF in accordance with approved procedures.

[2] Provides qualified personnel in support of RHWF Processing Operations.

[3] Delivers waste containers to the facility for processing.

[4] Receives processed waste containers for on-site storage.

[5] Becomes the generator of record upon approval of any newly identified waste streams per Attachment G.

4.2.2 PSO

[1] Maintains and operates the RHWF and its systems.

4.3 RHWF Process Support

4.3.1 Shift Engineering

[1] Perform evaluations to assure equipment and systems are functioning properly.

[2] Provides necessary documents, document revisions, and other technical support to operations.

4.3.2 Process Support

[1] Assists with preliminary waste inspection and segregation in order to support waste packaging operations.

[2] Evaluates waste assay data, survey information, visual data, any analytical data, and prepares documentation to support the on-site WAC requirements.

[3] Provides determination of adequacy of sampling plan.

[4] Provides direction for waste sorting and segregation.

5.0 OPERATING SUMMARY

5.1 Waste Stream Processing

Attachment A contains a listing of the SOPs to be used for RHWF Operations. Attachment B contains a summary of the in-process sampling and analytical information.

Waste containers as identified in Attachment C are delivered to the RHWF Receiving Area. The containers are then transferred to the Buffer Cell using the overhead bridge crane and/or the powered conveyor rollers. The containers are transferred to the Work Cell using the powered conveyor rollers.

Waste container processing is performed in the Work Cell. Processing within the Work Cell includes sampling, dewatering, segregating, size reduction, nondestructive assay, and packaging. Waste items that are ready for repackaging will be placed in either drum or box liners in the Work Cell. Full liners will be removed from the Work Cell, packaged in 55-gallon TRU drums or B-25 boxes in the Waste Packaging Area, surveyed for release in the Survey & Spot Decontamination Area, and removed from the RHWF through the Load-Out Area. An alternate path for removing items from the RHWF is available when the waste is packaged in the Work Cell and transferred back out through the Buffer Cell and Receiving Area. Use of this removal path must be approved on a per use basis.

The original 13 waste streams, identified for processing in the RHWF, are listed in Attachment C. These waste streams form the basis for the original design and safety evaluation of the RHWF. The waste streams are processed sequentially by campaign.

Attachment D contains the basic processing logic in the RHWF. For specific details regarding process logic, see the process flow diagrams paragraph 2.2 [3]. SOPs, as identified in Attachment A, provide specific authorized operational actions for work in the RHWF.

Attachment E contains a brief description of the purpose of each of the main processing areas in the facility.

5.2 Training & Qualification

Attachment F contains an RHWF training and qualification summary.

5.3 Radiological Controls

Radiological controls are established and maintained in accordance with WVDP-010, WVDP Radiological Controls Manual. Specific controls for the RHWF are established within operations work documents, Radiological Work Permits, and area postings.

5.4 Miscellaneous Attachments

Attachment G provides information required to include newly identified waste streams for processing in the RHWF.

Attachment H contains the Prerequisite Checklist required to be completed prior to the start of each waste processing campaign.

Attachment I contains Run Plan Exception (RPE) instructions and forms.

6.0 PREPARATION ACTIONS

6.1 Administrative

[1] SWAPs: The preparation of a SWAP for each waste stream is required prior to the start of processing of that waste stream. The SWAPs are prepared and approved by Waste Management Services (WMS).

[2] Sampling and Analysis (SAP) Plans/Data Quality Objectives (DQOs): In conjunction with the SWAPs, SAPs and DQOs may be prepared as required to support the in-process sampling and analytical requirements in Attachment B.

[3] Records: Records are collected in accordance with SOPs and this procedure during waste stream processing. These records provide supporting documentation for meeting the on-site waste acceptance criteria for newly generated waste containers.

[4] Log Books: Log books shall be used to document events, complications, issues, etc. in accordance with WVDP-106, Conduct of Operations Manual.

[+] 6.2 Prerequisite Actions (Action steps in this section must be performed in the order written.)

\+ [1] The Department of Energy has provided authorization to proceed via DOE letter _____, dated _____.

(FM) _____ _____
(sign/print) (date)

\+ [2] The liquid radwaste transfer line spool piece has been satisfactorily installed and tested via WVNSCO work package _____.

(FM) _____ _____
(sign/print) (date)

\+ [3] Authorization to commence RHWF processing operations is approved.

(FM) _____ _____
(sign/print) (date)

[4] Prerequisite Checklist: This checklist must be completed prior to the start of each waste processing campaign in the RHWF. See Attachment H for the Prerequisite Checklist.

7.0 PROCEDURE/SEQUENCE

The Procedure/Sequence section will contain the waste processing plan. This section will be used to invoke SOPs containing specific instructions for facility and equipment operation. This plan will be developed in conjunction with the SOPs.

8.0 RECORDS MAINTENANCE

8.1 Records generated as a result of implementing this procedure are identified as follows:

Attachment H, Prerequisite Checklists as they are completed.

Attachment I, Run Plan Exception Logs as they are completed.

8.2 Records shall be prepared, maintained, and transferred to Records & Configuration/Document Control for storage in accordance with WVDP-262, WVNS Manual for Records Management and Storage.

ATTACHMENT A
SOPs for RHWF Operations
(Page 1 of 1)

STANDARD OPERATING PROCEDURES (SOPs)

SOP Number	Title
313-01	RHWF Utilities
313-02	RHWF Crane Operations
313-03	RHWF Shield Door Operations
313-04	RHWF Ventilation System Operations
313-05	RHWF Stack System Operations
313-06	RHWF Wastewater Pretreatment System Operations
313-07	RHWF Conveyor System Operations
313-08	RHWF Remote Tooling Operations
313-09	RHWF Waste Packaging Operations
313-10	RHWF Sample System Operations
313-11	RHWF Distributed Control System Operation
313-12	RHWF Bagless Transfer System Operations
313-13	RHWF CCTV System Operation
313-14	RHWF Waste Characterization
313-15	RHWF Lead Shielding Tracking & Reconfiguration
313-16	RHWF Rounds, Building, and System Surveillance
313-17	RHWF Equipment Maintenance and Repair
313-18	RHWF Alarms and Alarm Responses

ATTACHMENT B
In-Process Sampling and Analytical Information
(Page 1 of 1)

I. SOLID WASTE SAMPLING

Most sampling activities will be performed in the Work Cell. Work Cell sampling is performed per an approved work document (e.g., SAP, Work Instruction, etc.). The Sample Packaging and Screening Area is used to remove samples from the Work Cell and prepare them for transfer to the lab. In general, sample analysis will not be used for waste segregation but will be used at a later date for characterization and validation. See SOP 313-10 for sample packaging and transfer instructions.

Analysis required for waste characterization includes radionuclide distribution(s), which are used in determining final radiological classification. Sampling and analysis will be used to ensure the package meets the On-Site WAC for on-site storage per WVDP-370, Radioactive Waste Acceptance Program. The sampling data will also be used to validate that the proper packaging requirements and applicable Resource Conservation and Recovery Act (RCRA) requirements have been met. Required RCRA inspections will be contained in RHWF SOPs.

Samples can be analyzed using on-site capabilities and confirmatory off-site analysis as determined by Waste Management Services and the A&PC Department. Numbers and types of samples will be based upon established radiological distributions, process knowledge, or by in-cell High Purity Germanium (HPGe) instrumentation. Use of Acceptable Knowledge (AK) and in-cell NDA instrumentation is designed to streamline the overall sampling strategy.

After packaging, a final surface smear sample will be performed on waste containers in the Survey and Spot Decon Area and counted by Radiation Protection prior to releasing the waste container from the facility. See SOP 313-10, RHWF Sample System Operations.

II. LIQUID WASTE SAMPLING

Liquid used for washdown and decontamination is collected in tanks located in the Washdown Collection Tank Room. The Washdown Collection Tanks and the Batch Transfer Tank will be sampled and analyzed to determine processing and/or disposal requirements. See SOP 313-06, RHWF Wastewater Pretreatment System Operations.

III. STACK SAMPLING

The HVAC exhaust stack is equipped with a sampling system to measure the concentration of radioactive materials in the exhaust. Sampling is required to monitor the effectiveness of the particulate removal system and for annual reporting purposes. When the HVAC system filters are changed out, the used filters will be sampled and analyzed prior to disposal. See SOP 313-05, RHWF Stack System Operations.

ATTACHMENT C
RHWF Waste Stream Container Identification
(Page 1 of 2)

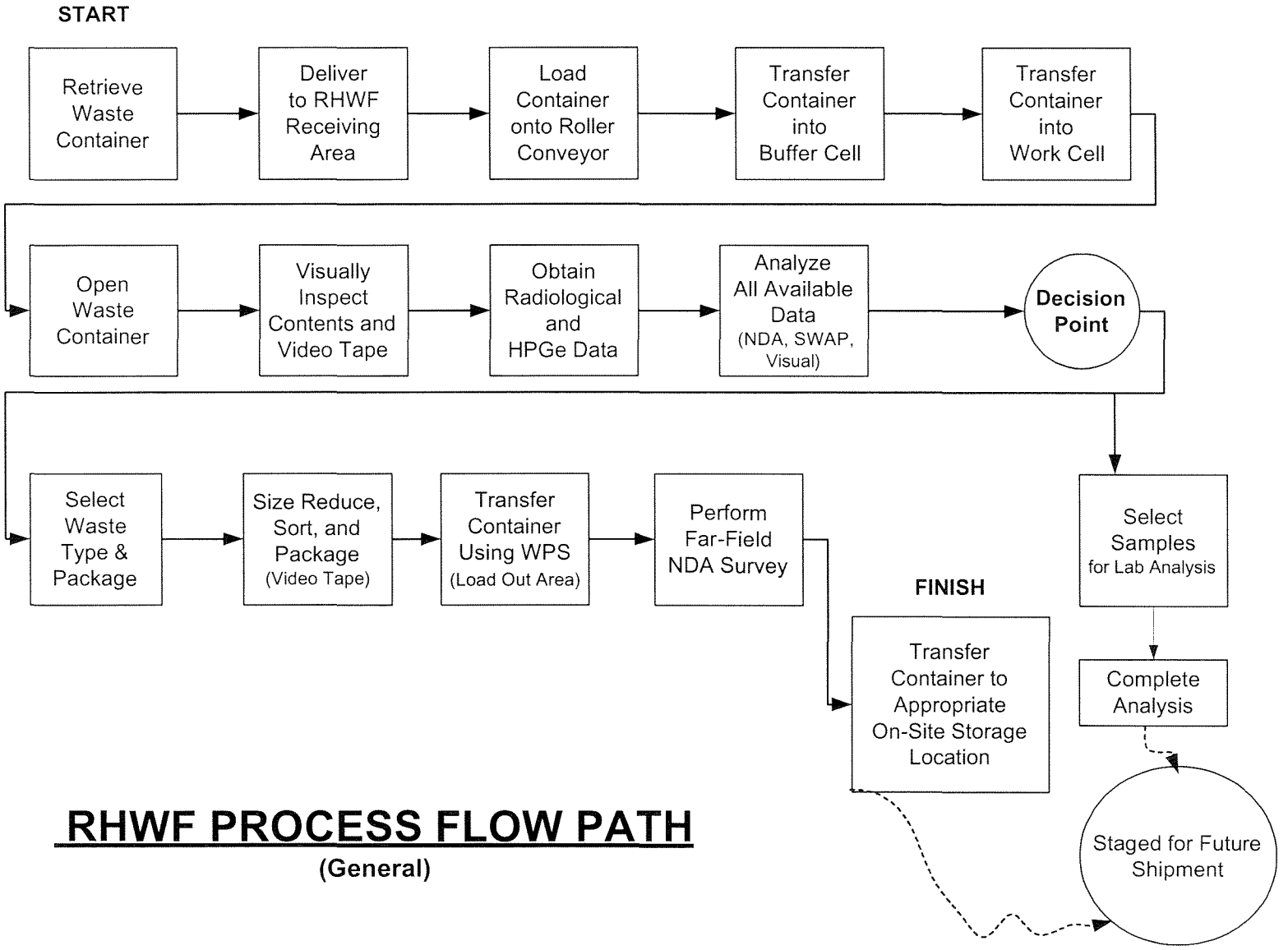
Campaign	WS#	Description	Stored Location	QTY	Container ID Numbers	Special Info
1	22	LLW Shielded Drums	LSA	22	3062, 3259, 3961, 3254, 6052, 6295, 6863, 7341, 7382, 7395, 7475, 9635, 9995, 6840, 6063, 7369, 6135, 6177, 6301, 7398, 11567, 15282	Box 12-442 holds Containers 3062 and 3259. Box 12-695 holds containers 3961 and 3254. Container SOP-481 contains drum 15282.
2	20	LLW Shield Boxes -DAW	CPC-WSA	13	12-1031, 12-1156, 12-1248, 12-1725, 12-2374, 12-246, 12-312, 12-316, 12-336, 12-412, 12-767, OP-004, SP-044	
3	24	LLW MP Crane Components (PMC/GPC)	Main Plant	8	SP-099, SP-128, SP-130, SP-131, up to 4 additional containers as yet not numbered.	Additional GPC/PMC trolley(s) and gear boxes from the crane segregated from other materials. (Information Source Memo on Special Package SP-143 and S-70 TBD, S. W. Chase to R. S. Roberts, dated 4/23/01)
4	13	LLW CPC Jumper Boxes	CPC-WSA	8	J1, J4, J5, J6, J7, J8, J9, J10	
5	16	LLW CPC Vessel Boxes	CPC-WSA	6	3D1, 3E2/3E3, 7C1, 7C2, 7C4, 7D10	
6	21	LLW Shield Boxes - Resins	LSA	10	SP-054, SP-055, SP-056, SP-057, SP-058, SP-059, SP-060, SP-061, SP-062, SP-063	

Campaign	WS#	Description	Stored Location	QTY	Container ID Numbers	Special Info
7	19a	TRU Shield Boxes	CPC-WSA	4	SR-039, SR-040, SR-041, SR-042	
8	12	TRU CPC Jumper Boxes	CPC-WSA	4	J2, J3, J11, J12	
9	15	TRU CPC Vessel Boxes	CPC-WSA	2	3E1, 7D4	
10	23	LLW WTF Pumps & Mechanical Arms	WTF	23	Vault 001, Vault 002, up to 21 additional WTF components are expected if removed from the WTF whole.	Mobilization pumps, transfer pump, floating pumps, sluice arms.
11	17	TRU Vent Filter Boxes	LSA	74	See below.	
12	18	TRU Grouted Vent Filter Boxes	LSA	4	SP-068, SP-069, SP-070, SP-071	
13	14	TRU CPC Dissolver Vessel Boxes	CPC-WSA	2	3C1, 3C2	
14	19b	TRU Shield Boxes	CPC-WSA	9	SP-022, SR-033, SR-034, SR-035, SR-036, SR-037, SR-038, SR-050, SR-051	
			TOTAL	**189**		

*Waste Stream 17 Container Identification

12-1513	12-377	TC-043	TC-086	TC-129	TC-146	TC-167
12-1514	12-378	TC-045	TC-090	TC-130	TC-148	TC-170
12-296	12-444	TC-046	TC-091	TC-131	TC-152	TC-171
12-318	12-486	TC-053	TC-114	TC-132	TC-153	TC-180
12-328	12-964	TC-058	TC-115	TC-134	TC-154	TC-181
12-329	12-972	TC-059	TC-117	TC-137	TC-155	TC-182
12-330	SP-024	TC-072	TC-119	TC-139	TC-156	TC-183
12-332	TC-001	TC-073	TC-125	TC-140	TC-157	TC-187
12-337	TC-033	TC-076	TC-126	TC-141	TC-158	TC-189
12-339	TC-036	TC-078	TC-127	TC-143	TC-159	TC-190
12-341	TC-042	TC-079	TC-128			

ATTACHMENT D
RHWF Process Flow
(Page 1 of 1)



RHWF PROCESS FLOW PATH

(General)

ATTACHMENT E
RHWF Processing Areas
(Page 1 of 1)

Following is a brief description of the purpose of the main areas in the RHWF.

Receiving Area
1. Receive containers of waste transported in a shield box on a transport trailer, on an open trailer with shadow shield, or with a forklift.
2. Allow controlled movement of waste containers into the facility with some shielding provided.
3. Provide the clean bridge crane storage and maintenance area.
4. Provide weather protection for unloading transport vehicles.

Buffer Cell
1. Act as an air lock between the Receiving Area and the Work Cell.
2. Allow contained movement of waste containers into the Work Cell with some shielding provided.
3. May be used as a radiologically controlled area for contact-handled operations such as repackaging, overpacking, swipe sampling, or removing large sized waste boxes when radiological conditions do not mandate remote handling operations.
4. May be used for surveying waste containers.

Work Cell
1. Primary work zone within the RHWF for fully remote handling, surveying, segmenting, size reduction, sampling, decontaminating, and repackaging operations.

Waste Packaging Area
1. Provide a confined and shielded space for efficiently loading out filled waste drums and boxes
2. Provide the physical boundaries necessary to bring material out of the Work Cell area with radiological contamination levels greater than 10^{12} dpm/100 cm^2, without contaminating the exterior surface of the 55-gallon TRU drum or B-25 box.

Survey & Spot Decontamination Area
1. Provide the third confinement zone outside the Work Cell, the second confinement zone being provided by the airlock design of the Waste Packaging Area.
2. Provide a space for surveying, spot decontamination, and overpacking of filled waste containers.

Loadout area
1. Provide a path for removing waste containers from the RHWF.
2. Provide an open and an out-of-the-weather location for performing an NDA of disposal-ready containers.

ATTACHMENT F
Training & Qualification Summary
(Page 1 of 1)

The overall objective of the RHWF Operations qualification program is to provide qualified personnel for the safe operation of and processing in the RHWF. Qualification consideration includes equipment operation, process flow, control instrumentation, radiological/industrial safety, and emergency response in accordance with T-40, Qualification/Certification of Operational Personnel.

At the completion of the training/qualification program, the operator will be able to:

1. Explain the theory and function of the RHWF process, equipment, and controls for generation of an acceptable product.

2. Perform the normal modes of operation per Standard Operating Procedures;

3. Detect abnormal or emergency conditions using the instrumentation available and visual monitoring of the components.

4. Mitigate emergency situations using appropriate procedures and bring the system to a safe shut-down mode.

5. Operate the facility safely in accordance with approved procedures.

ATTACHMENT G
RHWF Waste Stream Processing Guidelines
(Page 1 of 2)

1. The Remote Handled Waste Facility (RHWF)is designed to process the original waste streams identified in the 1998 Conceptual Design. These waste streams are identified in detail in Attachment C of this Run Plan.

2. The Remote Handled Waste Facility can accept additional waste streams. Approval to process these additional waste streams will be made on a case by case basis and is contingent upon favorable completion of a detailed evaluation of each waste stream and its impact on the RHWF. The type and history of the waste stream, cost, schedule, facility and system design basis, hazard analysis, and safety basis must be evaluated.

3. Considerations when preparing a report for approval for the introduction of a potential new waste stream include, but are not limited to the following:

    1. Size/weight
    2. Origin of waste location
    3. Radiation levels
    4. Curie and/or fissile content
    5. Analytical results
    6. Material type

4. Currently, the RHWF is not authorized or able to process the following:

    1. Liquid wastes
    2. Sludge or slurries
    3. Explosives
    4. Radioactive animal carcasses
    5. Compressed gases
    6. Etiological agents (pathogens)
    7. Containers larger than 12' wide by 12' high by 20' long
    8. Containers heavier than 53,800 pounds
    9. Waste with exposures rates higher than 15 R/hr at contact.
    10. High-Level Waste
    11. Main Plant wastes other than PMCR and GCR crane components
    12. Nonradiological RCRA waste

5. The following steps must be completed by the generator to determine if the waste stream can be accepted for processing through the RHWF: (See Form WV-4900, RHWF Waste Stream Processing Guidelines, Generator's Checklist)

    a. Perform and document a design basis analysis, with the assistance of the Cognizant Design Engineer, to determine if the newly identified waste stream can be processed within the current design basis of the facility. If processing the newly identified waste stream is determined to be outside the design basis, any required facility/system modifications must be identified including estimated costs and benefits.

ATTACHMENT G
RHWF Waste Stream Processing Guidelines
(Page 2 of 2)

b. Perform and document a USQ to determine if the waste stream or its processing is within the approved safety basis for the facility. If the waste stream or its processing is determined to be outside the approved safety basis, a determination must be made that identifies any facility/system modifications and/or Documented Safety Analysis changes which may be required, including estimated costs and benefits.

c. Information characterizing the newly identified waste must be provided, including the following:

- Waste/Container history
- Container size and weight
- Hazardous waste constituents, if any
- Dose surveys/radiological data
- Curie/Fissile Material content and quantities
- Analytical results - Radiological and hazardous
- Preliminary characterization evaluation
- DQO/sampling requirements

d. Perform and document detailed cost estimates (including estimates for life cycle cost, operational costs, material costs, resource costs).*

e. Perform and document an evaluation of potential schedule impacts to the project.*

f. Upon completion of steps 3.a. through 3.e. above, compile all documented information and provide in a report requesting approval for processing of the waste stream through the RHWF. The report must be sent to the WVNSCO Executive Vice President and Projects Manager (or designee) for approval.

6. Upon approval by the WVNSCO Executive Vice President and Project Manager (or designee) prepare and complete an Engineering Change Notice or document revision (as appropriate) to revise the RHWF Integrated Run Plan (WVNSCO-IRP-006), the RHWF Design Criteria (RHWF-DC-071), RHWF Process Flow Diagrams, and RHWF Standard Operating Procedures as required for processing of the newly approved waste stream.*

* - *RHWF Project Personnel are available to assist with the required evaluations. Contact the RHWF Project Manager for assistance.*

ATTACHMENT H
Prerequisite Checklist
(Page 1 of 3)

CAMPAIGN #_____

Prerequisite Checklist for Operations				
Prereq Number	Prerequisite Description	Exception (List any noted)	Prerequisite Complete SE/PE/OSS Sign & Date (Exceptions noted)	RHWF Operations Manager Review of Exceptions (Acceptable/Resolved/ Sign/Date)
1	Verify SWAP is complete for waste stream.			
2	Verify each container in the waste stream meets the RHWF WAC.			
3	An adequate number of empty liners are available to support continued operations. # of lines required _____.			
4	An adequate number of empty containers and overpacks are available to support continued operations. # of drums required _____. # of boxes required _____. # of overpacks req'd _____.			
5	Shielded fork lift or other transfer vehicle available.			
6	Conveyor system is operational.			
7	Shield door 313-M-001 is operational			
8	Shield door 313-M-003A is operational			
9	Shield door 313-M-003B is operational			
10	Shield door 313-M-005 is operational			
11	Crane 313-W-001 is operational.			
12	Crane 313-W-002 is operational.			
13	Crane 313-W-003 is operational.			

ATTACHMENT H
Prerequisite Checklist
(Page 2 of 3)

Prerequisite Checklist for Operations				
14	CCTV system is available to monitor container movements and waste segregation and liner filling operations.			
15	Videotape recording capabilities are available.			
16	HPGe system is available for far-field gamma assays.			
17	Bagless Transfer system is operational.			
18	HVAC and Stack Monitoring systems normal.			
19	Waste Packaging Area is available for load out of filled drums and boxes.			
20	Floor drain filters/strainers replaced since previous campaign.			
21	Status of wastewater tanks (% full): Buffer Cell/CMA Collection Tank _____ Work Cell Collection Tank _____ Batch Transfer Tank _____			
22	**(SE SIGNATURE REQUIRED)**: All specified preventive and routine maintenance has been satisfactorily reviewed and completed.			
23	**(SE SIGNATURE REQUIRED)**: RHWF Shift Engineer shall review all noted exceptions/problems/discrepancies and forward a list of these with any concerns to the RHWF Operations Manager.			

ATTACHMENT H
Prerequisite Checklist
(Page 3 of 3)

Prerequisite Checklist for Operations				
24	**(OSS SIGNATURE REQUIRED)**: Review all RHWF tagout logs, temporary modifications logs and roundsheets for discrepancies or conflicts which could preclude establishment of required RHWF conditions or prerequisites.			

ATTACHMENT I
RUN PLAN EXCEPTION (RPE)
(Page 1 of 3)

INSTRUCTIONS

An RPE is used by the Shift Engineer (SE), Process Support (PS), or Operations Shift Supervisor (OSS) to make modifications to this IRP. The purpose of an RPE is to allow one time or short duration exceptions to processing logic, sequence sampling, etc. An RPE shall not be used for instances that are normally expected to be identified and corrected using an Issue Report per WV-357.

SE, PS or OSS initiate RPE. Each step listed below corresponds to a block on the RPE sheet (attached) and provides the appropriate instructions for that block.

1. Print name.

2. Enter step or section of the IRP the RPE refers to.

3. Enter the next sequential RPE number. Also, enter required information in the Run Plan Exception Log (RPEL).

4. Enter the date and time which the RPE was initiated.

5. Enter an accurate and detailed description of the RPE being requested. Note any special conditions/circumstances identified.

6. Sign the Description of Exception (SE, PS or OSS).

7. Enter the appropriate corrective action or problem resolution.

8. Enter the steps or sections of the IRP which will be affected by the listed corrective action or problem resolution.

9. Obtain appropriate approvals. Minimum approvals for an RPE are (Facility Manager), (Cog Manager), and (Cog Engineer). Other approvals may be required based on the Quality Level of the product, radiological conditions, etc. Approval requirements are specified in this IRP.

10. Obtain "Record Work Copy" stamp on RPE.

11. Originator make copies of RPE and distribute to required individuals. As a minimum, those who approved the RPE shall receive a copy. Records Management shall be sent a copy by the next day using the site mail system.

11a. Enter the RPE number and description in the shift operations logbook.

12. After the exception resolution or corrective action is complete and the RPE is no longer required, SE, PS or OSS sign and date the RPE.

13. Maintain original copy of the RPE with the IRP.

ATTACHMENT I
RUN PLAN EXCEPTION (RPE)
(Page 2 of 3)

RUN PLAN EXCEPTION IRP-006		
NAME:	STEP #	RPE #
DESCRIPTION OF EXCEPTION:		
ORIGINATOR:	DATE:	TIME:
AFFECTED STEPS:		
RESOLUTION OF EXCEPTION:		
SE, PS or OSS:	DATE:	TIME:

CONCURRENCE		
(COG MAN):	IH&S:	
(COG ENG):	QA:	
(FAC MAN):	RP:	

[ ] RESOLUTION ACTION COMPLETE. _____ _____
SE, PS or OSS DATE/TIME

ATTACHMENT I
RUN PLAN EXCEPTION (RPE)
(Page 3 of 3)

Run Plan Exception Log IRP-006				
RPE #	WASTE CAMPAIGN #	DESCRIPTION	NAME	DATE
RH-001				

- DUPLICATE AS NECESSARY